

REMARKS

Claims 14 to 22 have been added, and therefore claims 8 to 22 are currently pending.

Applicants respectfully request reconsideration of the present application in view of this Amendment.

In paragraph one (1) of the Office Action, the specification and drawings were objected to as to minor formalities. In particular, the Office Action asserts that the specification uses certain terms (i.e., U_{nom} and $PWM_{setpoint}$) that are not reflected in the drawings. Figures 1, 2 and 4 have been corrected, as shown in the attached replacement sheets, to include these terms where appropriate. In particular, the designation U_{nom} has been added to Figures 2 and 4, as suggested. Figure 1 has been labeled to indicate the Control Unit STE, the Correction Unit KE, and the Output Stage EST. It is respectfully submitted that only corrected drawings and not formal drawings are required to comply with the rules.

In paragraph two (2) of the Office Action, the Figure 1 was objected to for not including labels for each of its boxes. The Figure 1 boxes have been labeled as Control Unit STE, Corrections Unit KE and Output Stage EST, as suggested. While the Office Action states that formal drawings are required, only corrected replacement drawings are required accordingly to the Rules, which are provided herewith.

Approval and entry are respectfully requested, as is withdrawal of the objections to the specification and drawings.

In paragraph three (3) of the Office Action, claims 8 to 13 were rejected under 35 U.S.C. §102(b) as anticipated by Ogasawara, U.S. Patent No. 5,170,106 (Ogasawara).

As regards the anticipation rejections of the claims, to reject a claim under 35 U.S.C. § 102(b), the Office must demonstrate that each and every claim feature is identically described or contained in a single prior art reference. (See Scripps Clinic & Research Foundation v. Genentech, Inc., 18 U.S.P.Q.2d 1001, 1010 (Fed. Cir. 1991)). As explained herein, it is respectfully submitted that the Office Action does not meet this standard, for example, as to all of the features of the claims. Still further, not only must each of the claim features be identically described, an anticipatory reference must also

enable a person having ordinary skill in the art to practice the claimed subject matter.
(*See Akzo, N.V. v. U.S.I.T.C.*, 1 U.S.P.Q.2d 1241, 1245 (Fed. Cir. 1986)).

As further regards the anticipation rejections, to the extent that the Office Action may be relying on the inherency doctrine, it is respectfully submitted that to rely on inherency, the Examiner must provide a “basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics *necessarily* flows from the teachings of the applied art.” (*See* M.P.E.P. § 2112; emphasis in original; and *see Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Int’f. 1990)). Thus, the M.P.E.P. and the case law make clear that simply because a certain result or characteristic may occur in the prior art does not establish the inherency of that result or characteristic.

Regarding the Ogasawara reference, it is respectfully submitted that this reference simply does not identically describe (or even suggest) each of the features of claim 8, which include the features of an electronic control unit for controlling the output stages using operating PWM control signals, a pulse width of the control signals being reducible as a function of a magnitude of a supply voltage and a specified setpoint such that the motor is protected against overloading, the control signals being determined by a specified operating setpoint up to a nominal voltage of the supply voltage, the pulse width of the control signals being reducible in linear or nonlinear proportion to an increasing supply voltage only upon exceeding the nominal voltage.

The Ogasawara reference purportedly concerns a method and device for protecting a motor against overload wherein a voltage of the motor is transformed into a pulse having a width that is compared to a motor revolution number so as to output an overload detection signal. The overload detection signal in excess of a preset value is detected to stop the motor. (*See Ogasawara*, Abstract).

The Office Action asserts that the specified operating setpoint and nominal voltage of the supply voltage of claim 8 are disclosed, respectively, by a minimum level of a chopping wave generator circuit (44) and a voltage (Eb1) shown in Figure 5 of the Ogasawara reference. It is respectfully submitted that Ogasawara does not identically describe (or even suggest) that voltage level (Eb1) represents a nominal voltage used as a threshold for reducing the pulse width of the control signals. The Ogasawara reference is

silent as to this feature because it is not concerned with protecting the motor from an excessive *voltage*, but is instead concerned with maintaining a near-constant *torque* level. As shown in Figure 4, once the motor level exceeds the minimum level of the chopping wave, the width of the comparator output pulse is gradually reduced. Thus, even if it is assumed that the chopping wave minimum constitutes a specified operating setpoint (the pulse width without reduction), there is no other nominal voltage that sets a threshold level for pulse width reduction. Furthermore, the voltage levels of Figures 1 and 5 (Eb1–Eb4) merely refer to an exemplary range of operating voltages, and do not represent nominal or threshold voltages.

In this regard, the function of the comparator (and the pulse signals it outputs) in Ogasawara is to provide a way to detect a point at which the number of motor rotations is no longer increasing in proportion to an increase in motor voltage, indicating an excessive load (torque) which slows the motor down *regardless of the motor voltage level*. (See Ogasawara, col. 5, lines 58 to 68). Thus, the comparator signals in Ogasawara indicate excessive torque rather than excessive voltage so that the motor voltage level is irrelevant in this context as long as the number of motor rotations is proportionate to the motor voltage level. Accordingly, as there is no need to protect against an excessive voltage level, the system of Ogasawara does not identically disclose (or even suggest) the feature of a pulse width of the control signals being reducible in linear or nonlinear proportion to an increasing supply voltage only upon exceeding the *nominal voltage*.

For at least the reasons explained above, it is submitted that claim 8 is allowable. As claims 9 to 13 depend from claim 8, they are allowable for the same reasons.

New claims 14 to 22 do not add any new matter and are supported in the specification. Claims 14 to 22 depend from claim 8, and are therefore allowable for the same reasons as claim 8. As further regards new claim 14, for example, it provides that the electronic control unit outputs the PWM controls signals to the output stages. In Ogasawara, PWN control signals are supplied to a CPU and are used for detecting an overloaded condition. The output stages of the motor never receive these pulsed signals and are decoupled therefrom. In contrast, claim 14 provides that the electronic control unit outputs the PWN controls signals to the output stages. It is therefore submitted that claims 14 to 22 are allowable.

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Accordingly, claims 8 to 22 are allowable.

CONCLUSION

In view of all the above, it is believed that the objections and rejections have been obviated, and that claims 8 to 22 are allowable. It is therefore respectfully requested that the objections and rejections be reconsidered and withdrawn, and that the present application issue as early as possible.

Respectfully submitted,
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